is in itself an advantageous feature. In addition, it could also possibly be used to control the lid-opening device. As an alternative or in addition, the control arrangement can be connected to a keypad, by which information about the samples and other containers can be entered. Preferably, the keypad is connected to the base housing, in particular through a fixed attachment.

According to the invention, a lid for samples that are processed in the analyzer system is preferably made of a non-magnetic material with an imbedded magnet-anchor element. At least theoretically, it would be conceivable to make the lid entirely of a magnetizable material, but this has proven to be disadvantageous for a variety of reasons. The magnet-anchor element can be set back from the topside of the lid behind a spacer arrangement, e.g., an arrangement of projections or a single projection in the topside of the lid. The spacer arrangement could consist of a magnetizable material bearing against a non-magnetic part of the lid-opening device, or it could consist of a non-magnetic material bearing against any portion of the lid-opening device. This measure assures that the magnet-anchor element cannot come so close to the magnet that the least amount of remanent magnetism could continue to keep the lid stuck to the magnet even after the magnetic hold has been released.

The simplest way of realizing a spacer arrangement is to cover the magnet-anchor element with a layer of non-magnetic material whose thickness defines a predetermined

distance by which the magnet-anchor element will be separated from any parts of the lid-opening device. In principle, the magnet-anchor element could simply be placed behind the non-magnetic topside of the lid. However, considering that some samples may give off aggressive vapors, it is more advantageous if the magnet-anchor element is contained within the non-magnetic material of the lid and thereby covered towards the topside as well as towards the sample. The simplest design within the scope of this inventive concept is to make the lid of a polymer material and to surround the magnet-anchor element with the polymer material, in particular by using an injection-molding process during which the magnet-anchor element is imbedded in the lid.

Particularly in cases as just described, the magnet-anchor element could conceivably be designed as a magnetizable powder that is integrated into the material of the lid. It would also be conceivable to use a simple magnetic plate. However, the magnetic flux lines will take on a more favorable pattern, if the magnet-anchor element is configured as a ring-shaped metal part, preferably of a diameter approximately commensurate with the pole distance of the electromagnet of the lid-opening device.

Particular attention must of course be paid to functional reliability. If the magnet-anchor element is arranged to one side of the lid, the hold between the electromagnet and the magnet-anchor element is less secure and could accidentally break loose because the upward- and

downward-directed forces acting on the lid are not in line with each other. If the magnet-anchor element is constituted by several pieces, e.g., distributed over the circumference of the lid, magnetic adhesion is improved and the lid is held more securely, but the lid-opening device becomes more complex. It is therefore preferred if the magnet-anchor element is arranged in a substantially centered position on the lid, whereby all of the aforementioned problems are avoided.

Further details of the invention may be learned from the following description of a preferred embodiment that is represented schematically in the drawings.

BRIEF DESCRIPTION OF THE DRAWING

In the attached drawing:

Fig. 1 represents a perspective view of an analyzer system designed according to the invention;

Fig. 2 represents a sectional view of the lid-opening device that is part of the analyzer system of Fig. 1.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Fig. 1 illustrates a base housing 1 that contains a drive mechanism 2 with a rotary shaft 3 shown in broken lines. The drive mechanism 2, in particular a stepper motor, drives a disk-shaped rotary sample tray 4. The sample tray 4 has a plurality of holding accommodations 5 in the form of